

## CLAIMS

- 1           1.     A consumer electronic device, comprising:  
2                 a network interface for communicating with a remote server; and  
3                 a media storage for storing program code modules for controlling an operation  
4                         of the consumer electronic device, the program code modules  
5                         comprising:  
6                         an error recovery module for utilizing the network interface to  
7                                 communicate with the remote server and attempt to recover from  
8                                 an error experienced by the consumer electronic device; and  
9                         a monitoring module for monitoring the operation of the consumer  
10                                 electronic device and determining whether to activate the error  
11                                 recovery module.
- 1           2.     The consumer electronic device of claim 1, wherein the consumer  
2     electronic device is a digital video recorder.
- 1           3.     The consumer electronic device of claim 1, wherein the media storage  
2     comprises:  
3                 a system area for storing the monitoring module and a control module for  
4                         controlling the operation of the consumer electronic device; and  
5                 an error recovery area for storing the error recovery module.
- 1           4.     The consumer electronic device of claim 3, wherein the error recovery area  
2     comprises:  
3                 data modules for storing backup copies of the monitoring and control  
4                         modules;  
5                 wherein the error recovery module is adapted to restore the monitoring and/or  
6                         control modules from the data modules to the system area.

1           5.     The consumer electronic device of claim 1, wherein the error recovery  
2 module comprises:  
3           a network recovery module for downloading and installing new program code  
4           modules from the remote server.

1           6.     The consumer electronic device of claim 1, wherein the network interface  
2 is adapted to communicate with a diagnostic server and wherein the error recovery  
3 module further comprises:  
4           a diagnostic module for communicating with the diagnostic server to diagnose  
5           the error experienced by the consumer electronic device.

1           7.     The consumer electronic device of claim 1, wherein the error recovery  
2 module is adapted to:  
3           attempt a first-level solution to the error; and  
4           responsive to a failure of the first-level solution, attempt a second-level  
5           solution to the error.

1           8.     The consumer electronic device of claim 7, wherein the first-level solution  
2 comprises attempting to recover from the error by performing a minor repair on the  
3 program code modules stored by the media storage.

1           9.     The consumer electronic device of claim 7, wherein the second-level  
2 solution comprises activating a network recovery module for downloading program code  
3 modules from a remote server and installing the program code modules on the media  
4 storage.

1           10.    The consumer electronic device of claim 1, further comprising:  
2           a nonvolatile memory for storing the monitoring and/or error recovery  
3           modules.

1           11.     The consumer electronic device of claim 1, further comprising:  
2                   a status module for displaying a status of the error recovery module.

1           12.     A method of attempting to resolve an error suffered by a consumer  
2 electronic device, comprising the steps of:  
3                   attempting to diagnose the error; and  
4                   attempting a solution to the diagnosed error suffered by the consumer  
5                   electronic device, the attempt performed automatically responsive to a  
6                   detection of the error.

1           13.     The method of claim 12, wherein the step of attempting a solution to the  
2 diagnosed error comprises the step of:  
3                   attempting to execute backup copies of program code modules for controlling  
4                   the consumer electronic device stored on a media storage associated  
5                   with the device.

1           14.     The method of claim 12, wherein the step of attempting a solution to the  
2 diagnosed error comprises the step of:  
3                   downloading program code modules for controlling the consumer electronic  
4                   device from a remote server in communication with the consumer  
5                   electronic device.

1           15.     The method of claim 12, wherein the step of attempting a solution to the  
2 diagnosed error comprises the steps of:  
3                   attempting a first-level solution to the error; and  
4                   responsive to a failure of the first-level solution, attempting a second-level  
5                   solution to the error.

1           16.     The method of claim 15, wherein the step of attempting a first-level  
2 solution to the error comprises the step of:  
3           attempting to recover from the error by performing minor repairs on a media  
4           storage associated with the consumer electronic device.

1           17.     The method of claim 15, wherein the step of attempting a second-level  
2 solution to the error comprises the step of:  
3           activating a network recovery module for downloading program code modules  
4           from a remote server and installing the program code modules on a  
5           media storage associated with the consumer electronic device.

1           18.     The method of claim 12, further comprising the step of :  
2           displaying a status of the consumer electronic device.

1           19.     A computer program product comprising:  
2           a computer-usable medium having computer-readable code embodied therein  
3           for controlling an operation of a consumer electronic device having a  
4           network interface, the computer program product comprising:  
5           an error recovery module for utilizing the network interface to  
6           communicate with a remote server and attempt to recover from an  
7           error experienced by the consumer electronic device; and  
8           a monitoring module for monitoring the operation of the consumer  
9           electronic device and determining whether to activate the error  
10          recovery module.

1           20.     The computer program product of claim 19, wherein the computer-usable  
2 medium comprises:  
3           a system area for storing the monitoring module and a control module for  
4           controlling the operation of the consumer electronic device; and  
5           an error recovery area for storing the error recovery module.

1           21.     The computer program product of claim 20, wherein the error recovery  
2 area comprises:  
3           data modules for storing backup copies of the monitoring and control  
4           modules;  
5           wherein the error recovery module is adapted to restore the monitoring and/or  
6           control modules from the data modules to the system area.

1           22.     The computer program product of claim 19, wherein the error recovery  
2 module comprises:  
3           a network recovery module for downloading and installing new program code  
4           modules from the remote server.

1           23.     The computer program product of claim 19, wherein the network interface  
2 communicates with a diagnostic server and wherein the error recovery module further  
3 comprises:  
4           a diagnostic module for communicating with the diagnostic server to diagnose  
5           the error experienced by the consumer electronic device.

1           24.     The computer program product of claim 19, wherein the error recovery  
2 module is adapted to:  
3           attempt a first-level solution to the error; and  
4           responsive to a failure of the first-level solution, attempt a second-level  
5           solution to the error.

1           25.     The computer program product of claim 24, wherein the first-level  
2 solution comprises attempting to recover from the error by performing minor repairs on  
3 the computer-readable code for controlling the operation of the consumer electronic  
4 device.

1           26.     The computer program product of claim 24, wherein the second-level  
2 solution comprises activating a network recovery module for downloading program code  
3 modules from a remote server and installing the program code modules on the computer-  
4 usable medium.

1           27.     The computer program product of claim 19, wherein the computer-usable  
2 medium further comprises:  
3                 a nonvolatile memory for storing at least a portion of the monitoring and/or  
4                 error recovery modules.

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